

## Hundreds Get Behind-the-Scenes Look at NASA's Journey to Mars

It was all Mars, all day Aug. 18 at NASA's Michoud Assembly Facility and Stennis Space Center. Dubbed "NASA Mars Day," the event gave hundreds of people, including members of the news media and 85 NASA Social participants, a behind-the-scenes look at progress on the agency's journey to Mars. NASA Socials provide opportunities for social media followers to learn and share information about NASA's missions, people and programs. In 2018, SLS and Orion will launch together for the first time, and be capable of sending humans farther into space than ever before.

Social media participants also had the opportunity to ask questions and hear from NASA officials about numerous efforts being made now to enable human exploration on Mars. The panel for that discussion included Todd May, director of NASA's Marshall Space



NASA Social participants hear about NASA's journey to Mars during a panel discussion and question-and-answer session at Michoud.

Flight Center; Bill Hill, deputy associate administrator for the Exploration Systems Development at NASA Headquarters; Rick Davis, assistant director for Science and Exploration, Planetary Science Division at NASA Headquarters; John Vickers, principal technologist for the Space Technology Mission Directorate at Marshall; Katie Boggs, manager for Systems and Technology Demonstration at NASA Headquarters; and NASA astronaut Rick Mastracchio.

A tour of Stennis and a successful hot fire of the SLS RS-25 development engine on the A-1 test stand closed out the day.



### **Letter from Leadership**

Team,



Bobby Watkins, Michoud Director

On September 7, Michoud marked 55 years as a NASA facility. Back then, our employees were focused on building a rocket to take the first humans to the Moon. Now, after supporting 12 Apollo missions and 135 Space Shuttle missions, Michoud is focused on

NASA's current goal. The team at Michoud is building the Space Launch System, the world's most powerful rocket that will be the "ride" to take the first people to Mars. Michoud's anniversary was included in this week's Marshall Star. Here is a link to the issue:

http://www.nasa.gov/centers/marshall/about/star/star160914.html

I would like to sincerely thank everyone involved with the Journey to Mars event on Augusts 17 and 18 for their hard work on the days of the event and the weeks leading up to it. Your efforts made this NASA, SLS and Michoud event enormously successful!

Our goal was to spread the word about the progress being made on SLS and Orion here at Michoud and we achieved that! More than 100 social participants and traditional media were given a behind-the-scenes look at SLS and Orion along with key stakeholders and Congressional representatives.

Here is a short list of some of the impressive results: #NASAMarsDay was in the top ten trending Twitter topics, #NASAMarsDay was the most popular NASA-related hashtag of the week, 1.1 million people were reached during the Facebook Live at Michoud and 25 media also covered Mars Day in stories that shone a spotlight on Michoud and its role in the Journey to Mars.

The excellence you bring to your work is being recognized by all who come to our facility including recent visitors NASA Administrator Charlie Bolden, NASA Associate Administrator Robert Lightfoot and members of the Non-Budget Action team, and Marshall Space Flight Center (MSFC) Associate Director Robin Henderson.

MSFC Director Todd May, who took a lead role in Journey to Mars and also participated in our Annual Peer Awards Ceremony, echoed those same sentiments. I am very proud of what we are accomplishing as a team. It is this spirit of resilience, mutual respect, and commitment that will ensure Michoud's future for many years to come.

Bobby Watkins,
Director of Michoud
Assembly Facility

Editor's Note: If you have a question or topic, you'd like to see Bobby address in his column, please email him at Bobby.j.watkins@nasa.gov.

## SPMTs Parade Down Saturn Blvd.

At NASA's Michoud Assembly Facility in New Orleans, engineers took the four self-propelled modular transporters (SPMT) out for a test drive. It takes a big powerful vehicle to move the largest rocket stage in the world, the Space Launch System (SLS) core stage, coming in at 212-feet long and weighing 90 tons without propellant. Each transporter is over 33 feet long and 12 feet wide and can carry 75 tons each. On each transporter, the 12 electric wheel modules are powered by a propane-driven Chevy 350 cubic-inch small block engine. The transport-



ers can position the cargo to within 5 one-thousandths of an inch – that's less than the size of a grain of sand. The SPMTs contain systems to monitor and control the forces imparted into the delicate hardware and a fire suppression system in the event of emergencies. The transporters were built by Wheelift of Waterloo, lowa.

## Saturn V Booster Moved to Infinity Museum

History both repeated and foreshadowed itself with transport of the S-IC-15 Saturn V rocket stage to NASA's Stennis Space Center in June.



The Saturn S-1C-15 stage starts it's journey to Stennis Space Center in Mississippi. It has been placed on display at the Infinity Science Center and can be seen from I-10 after crossing the Louisiana-Mississippi State Line.

It repeated in literal fashion. The stage was transported from NASA's Michoud Assembly Facility to Stennis Space Center on June 16, via the same water route it took more than 45 years ago to undergo testing at Stennis. On June 20, the stage traveled from Stennis to the INFINITY Science Center for public display.

The move also foreshadowed the future in taking the same route that NASA's Space Launch System (SLS) first stage will travel next year when it arrives for its own testing at Stennis – on the very same B-2 Test Stand that housed and tested the Saturn V stage.

As if such historical connections are not enough to demand notice of the stage arrival, there also was the sheer spectacle of watching the mammoth rocket stage in transport. The S-IC-15 was one of fifteen Saturn V first stages built during those early years of the American space program.

The S-IC-15 stage now displayed at INFINITY is 138 feet long and 33 feet in diameter. Empty, it weighs 300,000-plus pounds. Loaded with fuel, it weighs 4.8 million pounds. Powered by five Aero-

jet Rocketdyne F-1 engines firing simultaneously, the stage supplied 7.5 million pounds of thrust for two-and-a-half minutes at launch.

Anyone at Stennis on Sept. 30, 1970, heard and witnessed the power of such thrust during the S-IC-15 test firing that lasted a few seconds over two minutes. Following the Sept. 30 test, the S-IC-15 stage was transported back to Michoud, where it had been assembled. It was placed on display near Michoud's main entrance in 1978.

# Real Superheroes Don't Wear Capes!



On Aug. 28, Michoud opened the gates to employee's children to help inspire them to pursue careers in STEM - Science, Technology, Engineering, and Math. During the "Take Your Children To Work Day", the youths were taken on a guided tour of the facility with explanations on how we manufacture the SLS Core Stage and the Orion spacecraft. They also participated in material science demonstrations to get a better understanding of the materials that make up the vehicles. Children could walk NASA's Journey To Mars, a scale model to help them comprehend the size and distance between Earth and Mars. They learned about physics through building paper airplanes. Interactive computer exhibits allowed them to build and launch the SLS Rocket and place themselves into a spacesuit on Mars with the Curiosity Rover. The Coast Guard and the Navy demonstrated their boats and talked about their missions. The event was coordinated by a team of individuals from NASA, A2R, The Boeing Company, Lockheed Martin, Syncom Space Services, United States Coast Guard and Vivace.

### Michoud Gets "Jazzed" at Annual Peer Awards

The NASA Michoud Assembly Facility Ceremony was held August 18th. This year's event held a Jazz theme hot jazz played by DJ Ronnie Roux and hot boiled shrimp on the menu. MSFC Center Director Todd May was on hand along with Michoud director Bobby Watkins to present the awards. The Peer Awards are named in keeping with the Jazz theme, with all winners nominated and voted on by Michoud employees and votes tallied by the Awards Presentation Committee.

#### The 2015 honorees are:

Kelley Easley: NASA Exceptional Service Medal Jane T. Kennedy: NASA Silver Achievement Medal Owen Johnson: Director's Commendation Certificate Joseph Costa: Certificate of Appreciation

#### 2015 NASA Group Achievement Awards:

Logistics Ingress Team which included Erica Allen: Larry Allen: Melvin Andry: Amanda Aramburo: Corey Armont: Michael Armstrong; Richard Augustin.; Dameon Bickham; Kris Bordelon; Shelly Breault; Adam Bretey; Tyrone Brooks; Jason Burkhardt; Jack Burks; Paul Cager; Clifford Chevis; Alivin Christophe; Arlan Cochran; James Cousin; Mark Dauth; Irma Desilva; Keith Desselles; John Dobson; David Duplantis; Dennis Faye; Shane Fischer; Natasha Garcia; Danny Giovingo; Jerry Gosin; Raynard Hall; Steven Hanberg; Leonel Harrache; Samuel Hayes; Kenneth Howard; Larry Jackson; Clifford Jiles; Owen Johnson; Derrick Jones: Miriam Karl: Nicholas Key: Terrel Leflore: Daniel Lewis; David Macdonald; Alfred Mccrea; Troy Meyer; Jaron Montgomery; Damien Moore; Mark Moore; Alvin Morgan; Anthony Murray; Patrick; Nailor; Michael Newbold; Michael Over; Savana Peed; Gary Perniciaro; Pamela Ramirez; Howard Richards; Perry Robin; Bruce Rushing; Eric Shoemaker; Damien Smith; Herbert Smith; Pamela Smith; Maggie Foozer; Bruce Spiers; Lisa Spiers; Mark Spiers; Lauren Stigler; Ronald Stigler; Tebah Taplet; Earl Thomas; Todd Tranchina; Brie Trocquet; Robert Turgeau; David Turnage; Travis White; Yotta Williams; Guillermo Wolner

MAF Tenant Billing Process Team which included Judy Drabkin; Kelley Easley; Mike Kynard; Gene Flores; Kimberly Hutchinson; Eric Shoemaker; Maggie Foozer; Cynthia Spraul

#### The 2016 honorees are:

Mike Kynard: Outstanding Leadership Medal John Tonglet: Exceptional Public Achievement Medal Maggie Foozer: Silver Achievement Medal Jay Fallo: Director's Commendation Award.

#### 2016 NASA Group Achievement Awards:

Michoud Site Optimization Team which included Kelley Easley;

Gene Flores; Bob Fudickar; Rob Gravolet; William Herrin; Colin Lusk; Eric Shoemaker; Cynthia Spraul; Malcolm Wood. Michoud/Stennis Lab Consolidation Team which included Sophia Adams; Kelley Easley; Gene Flores; Cynthia Spraul; Eugene Watkins

The Saturn V Booster Relocation Team which included Arlan Cochran; Miguel De Jesus; Terry Fitzgerald; Owen Johnson; Vickie Schmersahl; Stephen Turner

The Cells N & P Modification and Activation Team which included Arthur Boudreaux; Keith Camp; Clifford Chevis; Alvin Christophe; Tammy Harrington; Roger Irion; Miriam Karl; David McCrary; Mark Myers; Samuel Oliphant; David Petry; Richard Reed; Michael Sperry; John Tonglet; Yotta Williams; William Winsor.

The ET-94 Relocation Team which included Erica Allen-Cassara; Corey Armont; Richard Augustin; Andrew Booth; Eric Bordelon; Shelly Breault; Terry Fitzgerald; Stephen Francis; William Hale; Carl Howat; Owen Johnson; Alfred McCrea; Mark Moore; Keith Savoy; Steven Seipel; Damien Smith; Stephen Turner. *The Demand Services Team* which included Judy Drabkin; Kelley Easley; Gene Flores; Kimberly Hutchinson; Eric Shoemaker; Maggie Foozer.

#### 2016 Peer Awards:

"In The Pocket Award" or Teamwork Award: Sophia Adams, Arlan Cochran, Roman Davis, Aaron Dugan, Mike Over, Ralph Stephan "Hep Cat Award" or Innovation Award: Deborah Alley, Henry Conravey, William Hall Jr., Anthony Hardy, Phan Nguyen, Steven Seipel

"Bee's Knees Award" or Community Service Award: Demetria Carter, Miguel De Jesus, Ruth Fox, Shannon LaNasa, Tony Santalucito

"Harmony Award" or Customer Service Award: Gilbert Atilano, Jalesa Fletcher, Tracey Higgins, Kim Hutchinson, Daniel Landry, Byron Mercier, Chris Nye

"Cool Cat Award" or Adaptability Award: Eric Dede, Kelley Easley, Jenny Jones, Byron Lee, Ken Smithers, James Watkins, Larry Wilson

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